Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method comprising:

sensing force information at a plurality of points on a substantially continuous surface, the force information related to an object on the surface;

calculating a distribution of force exerted by the object, relative to the surface, based on the force information; and

determining a location of the object on the surface, based on the distribution of force, wherein computing a center of force comprises:

computing a total force applied to the surface by the object;

computing the center of force of the object on the surface;

determining a first component of the center of force by computing a first quotient of a first sum and a total force applied to the surface by the object, the first sum obtained by summing a first force applied at a first point and a second force applied at a second point; and

determining a second component of the center of pressure, perpendicular to the first component, by computing a second quotient of a second sum and the total force, the second sum being obtained by summing the first force applied at the first point and a third force applied at a third point.

2. (Cancelled)

3. (Cancelled)

4. (Original) The method of claim 1 comprising:

sensing a variation in the force information; and

detecting a change in the location of the object, relative to the surface, based on the variation in the force information.

5. (Currently Amended) The method of ~~claim 3~~ claim 1 comprising:

computing the first and second components of the center of force of the object at a first period of time;

computing the first and second components of the center of force of the object at a second period of time; and

detecting a new location of the object on the surface, based on a change in the first and second components from the first period to the second period.

6. (Original) The method of claim 1 comprising:

sensing the force information at a later period of time; and

detecting a second location of a second object on the surface based on the force information.

7. (Cancelled)

8. (Original) The method of claim 1 in which sensing force information includes measuring a voltage level at a plurality of load cells, each of the load cells corresponding to each of the plurality of points.

9. (Original) The method of claim 8 comprising compensating for the force applied by the surface to the load cells.

10. (Original) The method of claim 6 comprising:

identifying the object as a person; and

tracking the position of the person.

11. (Cancelled)

12. (Original) The method of claim 6 comprising:

identifying the first and second objects as people; and

tracking a center of activity of the people.

13. to 24. (Cancelled)

25. (Currently Amended) A method comprising:

sampling force information at points on a continuous surface during a plurality of time intervals; ~~intervals; and~~

identifying an interaction between an object and the surface based on the sampled information;

computing an average force on the surface during each of the time intervals;

comparing a first average weight during a starting interval to a second average weight during an ending interval;

determining that a first variability during the starting interval meets or exceeds a variability threshold value;

comparing a second variability during the ending interval to a third variability during an intermediate interval, between the starting and ending intervals; and

identifying a change in a number of objects on the surface, based on the first and second average weights, and the first second, and third variabilities..

26. (Cancelled)

27. (Currently Amended) The method of claim 25 ~~claim 26~~ comprising computing a variability in the force on the surface during each of the time intervals.

28. (Cancelled)

29. (Currently Amended) The method of claim 25 ~~claim 28~~ comprising comparing a difference between the first average weight and the second average weight to an average weight threshold.

30. (Currently Amended) The method of claim 25 ~~claim 28~~ comprising:

determining that a difference between the first and second average weights meets or exceeds an average weight threshold;

determining that the third variability meets or exceeds a variability threshold value;

comparing the third variability to the first and second variabilities; and

identifying a change in object position.

31. (New) A method comprising:

sensing force information at a plurality of points on a substantially continuous surface, the force information related to an object on the surface;

calculating a distribution of force exerted by the object, relative to the surface, based on the force information;

determining a location of the object on the surface, based on the distribution of force;

sensing the force information at a later period of time; and

detecting a second location of a second object on the surface based on the force information,

wherein computing a center of force comprises:

determining a first component of the center of force by computing a first quotient of a first sum and a total force applied to the surface by the object, the first sum obtained by summing a first force applied at a first point and a second force applied at a second point; and

determining a second component of the center of pressure, perpendicular to the first component, by computing a second quotient of a second sum and the total force, the second sum being obtained by summing the first force applied at the first point and a third force applied at a third point.

32. (New) A method comprising:

sensing force information at a plurality of points on a substantially continuous surface, the force information related to an object on the surface;

calculating a distribution of force exerted by the object, relative to the surface, based on the force information;

determining a location of the object on the surface, based on the distribution of force;

sensing the force information at a later period of time;

detecting a second location of a second object on the surface based on the force information;

identifying the object as a person;

tracking the position of the person;

identifying the second object as a possession of the person;

detecting an absence of the person on the surface; and

alerting the person that the second object has been left behind.